



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,722	09/09/2003	Rahul Gupta	2003P11660US	2769

7590 11/07/2005

Siemens Corporation
Attn: Elsa Keller, Legal Administrator
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER

SANTIAGO, MARICELI

ART UNIT PAPER NUMBER

2879

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/658,722	Applicant(s) GUPTA ET AL.	
	Examiner Mariceli Santiago	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 13-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/9/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I, claims 1-12 in the reply filed on October 25, 2005 is acknowledged. The traversal is on the ground(s) that examination of all the claims can be made without serious burden to the examiner. This is not found persuasive since the inventions of Groups I and II are distinct as shown by their separate classification, and their recognized divergent subject matter, for reasons stated in the Restriction requirement, thus satisfying the criteria for establishing undue burden. Moreover, even if the Applicant does not consider the examination a burden, the election-restriction is based on different inventions, an examination of one of the inventions does not mean that the references used to reject it will automatically be used to reject the others since each claimed invention have different and distinct features or limitations. Thus, the serious burden on the Examiner of having to search all the features or limitations directed to different inventions and to reject each invention using different references is eliminated by the proper election of invention requirement. Moreover, when searching only the elected invention, there will not be a need to search for features not stated in the elected invention, thus resulting in a reduction of the workload and in a simplification of the prosecution of the application.

Accordingly, claims 13-25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. The requirement is still deemed proper and is therefore made FINAL.

Drawings

Figures 1-4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37

Art Unit: 2879

CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Duineveld et al. (WO 01/39272 A1).

Regarding claim 1, Duineveld discloses an organic light emitting diode (OLED) display consisting of a plurality of pixels (31A, 31B, 31C), each pixel emitting light in one of a plurality of colors, comprising, a lower electrode layer (23), a photo-resist layer (28), the photo-resist layer fabricated upon the lower electrode layer, the photo-resist layer patterned into a plurality of mushroom banks to define pockets upon the lower electrode layer (Page 9, lines 6-20), each pocket defining the active region of each of the pixels, a plurality of polymer layers (Page 5, lines 12-26), the polymer layers formed by dropping a liquid substance into each of the defined pockets and allowing the substance to dry therein (Page 5, lines 26-30), and an upper electrode layer (26) patterned above the polymer layers, the upper and lower electrode layers conducting electrical energy to the polymer layers causing at least one of the polymer layers to emit light thereby.

Regarding claim 2, Duineveld discloses a display wherein the mushroom banks overhang a portion of the lower electrode layer (Page 9, lines 6-20).

Regarding claim 3, Duineveld discloses a display wherein the liquid substance includes at least partially organic materials (Page 5, lines 12-26).

Regarding claim 4, Duineveld discloses a display wherein the polymer layers include a conducting polymer layer which aid in the transport of electrical energy, and an emitting polymer layer emitting light in one of the colors upon activation by the electrical energy (Page 14, lines 1-3).

Regarding claim 5, Duineveld discloses a display wherein the colors include white, red, green and blue colors (Page 14, lines 3-5).

Regarding claim 6, Duineveld discloses a display wherein the configuration of the mushroom banks varies in accordance with the properties of the substance to be deposited (Page 7, lines 1-4).

Regarding claim 7, Duineveld discloses a display wherein the configuration of the mushroom banks is trapezoidal (Page 9, lines 6-20).

Regarding claim 8, Duineveld discloses a display wherein the substance when dried has a substantially flat and substantially uniform profile (due to the banks' shape and wet-application technique used for the fluid substance).

Regarding claim 9, Duineveld discloses a display wherein the configuration of the mushroom banks is T-shaped (Page 9, lines 6-20).

Regarding claim 10, Duineveld discloses a display wherein the configuration of the mushroom banks is such that the walls of the mushroom banks are curved (Page 9, lines 6-20).

Regarding claim 11, Duineveld discloses a display wherein the lower electrode layer is an anode layer and the upper electrode layer is a cathode layer.

Regarding claim 12, Duineveld discloses a display wherein the configuration of mushroom banks includes a plurality of different shapes coalesced together (Page 9, lines 6-20).

Claims 1-5 and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Maruyama et al. (US 2001/0041270, now U.S. Patent No. 6,692,845).

Regarding claim 1, Maruyama discloses an organic light emitting diode (OLED) display consisting of a plurality of pixels (RGB), each pixel emitting light in one of a plurality of colors, comprising, a lower electrode layer (12), a photo-resist layer (13), the photo-resist layer fabricated upon the lower electrode layer, the photo-resist layer patterned into a plurality of mushroom banks to define pockets upon the lower electrode layer, each pocket defining the active region of each of the pixels, a plurality of polymer layers (15, 16, 17), and an upper electrode layer (17) patterned above the polymer layers, the upper and lower electrode layers conducting electrical energy to the polymer layers causing at least one of the polymer layers to emit light thereby.

In regards to the limitation "the polymer layers formed by dropping a liquid substance into each of said defined pockets and allowing said substance to dry therein", the recitation is considered a "product-by-process". Patentability of a claim to a product does not rest merely on the difference in the method by which the product is made. Rather, is the product itself which must be new and not obvious. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Accordingly, the structure implied by the process steps would be considered for assessing the patentability of product-by-process claims over the prior art (see MPEP 2113).

Regarding claim 2, Maruyama discloses a display wherein the mushroom banks overhang a portion of the lower electrode layer.

Regarding claim 3, Maruyama discloses a display wherein the liquid substance includes at least partially organic materials.

Regarding claim 4, Maruyama discloses a display wherein the polymer layers include a conducting polymer layer which aid in the transport of electrical energy, and an emitting polymer layer emitting light in one of the colors upon activation by the electrical energy.

Regarding claim 5, Maruyama discloses a display wherein the colors include white, red, green and blue colors.

Regarding claim 9, Maruyama discloses a display wherein the configuration of the mushroom banks is T-shaped.

Regarding claim 10, Maruyama discloses a display wherein the configuration of the mushroom banks is such that the walls of the mushroom banks are curved.

Regarding claim 11, Maruyama discloses a display wherein the lower electrode layer is an anode layer and the upper electrode layer is a cathode layer (Paragraph [0038]).

Regarding claim 12, Maruyama discloses a display wherein the configuration of mushroom banks includes a plurality of different shapes coalesced together.

Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

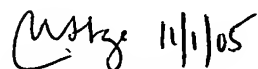
Art Unit: 2879

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariceli Santiago whose telephone number is (571) 272-2464. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 11/1/05

Mariceli Santiago
Primary Examiner
Art Unit 2879